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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,953	12/30/2005	Stefan G. Pierzynowski	CU-4618 BWH	8692

26530 7590 10/06/2008  
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CHICAGO, IL 60604

EXAMINER
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BLAKELY III, NELSON CLARENCE

ART UNIT	PAPER NUMBER
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1614

MAIL DATE	DELIVERY MODE
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10/06/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/562,953	<b>Applicant(s)</b> PIERZYNOWSKI ET AL.	
	<b>Examiner</b> NELSON C. BLAKELY III	<b>Art Unit</b> 1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-28 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Application Status***

Claims 1-28 of the instant application are pending. The previous restriction/election of species requirement, filed 08/26/2008, is hereby **vacated**.

### ***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-6, 13-20 and 24-28, drawn to a method for improving absorption of amino acids in a vertebrate.

Group II, claim(s) 7, 9-20 and 24-28, drawn to a method for decreasing absorption of plasma glucose in a vertebrate.

Group III, claim(s) 8 and 13-28, drawn to a method for preventing, inhibiting, or alleviating a high glucose condition in a vertebrate.

Group IV, claim(s) 13-20 and 24-28, drawn to alpha-ketoglutaric acid (AKG), derivatives, metabolites, analogues, or mixtures thereof.

Group V, claim(s) 13-20 and 24-28, drawn to a method of making alpha-ketoglutaric acid (AKG), derivatives, metabolites, analogues, or mixtures thereof.

Instant claim(s) 13-20 and 24-28 are non-statutory, in that, the claimed invention, as set forth, is not encompassed within one of the statutory classes presented under 35 U.S.C. 101, such as a product/composition, process of use, or process of making.

Art Unit: 1614

Therefore, the Examiner has considered these possible interpretations of instant claim(s) 13-20 and 24-28, thereby placing instant claim(s) 13-20 and 24-28 in all three groups above.

The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons.

Group I involves the method of improving absorption of amino acids in a vertebrate. The methodological steps, with regard to novelty, are not shared by Groups II-V; therefore, the special technical feature of Group I is not present in Groups II-V.

Group II involves a method of decreasing absorption of plasma glucose in a vertebrate. The methodological steps, with regard to novelty, are not shared by Groups I, III-V; therefore, the special technical feature of Group II is not present in Groups I, III-V.

Group III involves a method for preventing, inhibiting, or alleviating a high glucose condition in a vertebrate. The methodological steps, with regard to novelty, are not shared by Groups I, II, IV and V; therefore, the special technical feature of Group III is not present in Groups I, II, IV and V.

Group IV involves alpha-ketoglutaric acid (AKG), derivates, metabolites, analogues, or mixtures thereof. The special technical feature, with regard to novelty, of said derivates, metabolites, analogues, or mixtures thereof is not shared by Groups I-III and V; therefore, the special technical feature of Group IV is not present in Groups I-III and V.

Art Unit: 1614

Group V involves a method of making alpha-ketoglutaric acid (AKG), derivatives, metabolites, analogues, or mixtures thereof. The special technical feature, with regard to novelty, of said derivatives, metabolites, analogues, or mixtures thereof is not shared by Groups I-IV; therefore, the special technical feature of Group V is not present in Groups I-IV.

With regard to Groups I-V, Applicant is further required to elect a disclosed alpha-ketoglutaric acid (AKG) derivate, metabolite, analogue, or mixture thereof.

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows.

A disclosed alpha-ketoglutaric acid (AKG) derivate, metabolite, analogue, or mixture thereof.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims

Art Unit: 1614

are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

With regard to Invention I, a disclosed alpha-ketoglutaric acid (AKG) derivate, metabolite, analogue, or mixture thereof – Instant claims 1-6, 13-20 and 24-28.

With regard to Invention II, a disclosed alpha-ketoglutaric acid (AKG) derivate, metabolite, analogue, or mixture thereof – Instant claims 7, 9-20 and 24-28.

With regard to Invention III, a disclosed alpha-ketoglutaric acid (AKG) derivate, metabolite, analogue, or mixture thereof – Instant claims 8 and 13-28.

With regard to Invention IV, a disclosed alpha-ketoglutaric acid (AKG) derivate, metabolite, analogue, or mixture thereof – Instant claims 13-20 and 24-28.

With regard to Invention V, a disclosed alpha-ketoglutaric acid (AKG) derivate, metabolite, analogue, or mixture thereof – Instant claims 13-20 and 24-28.

The following claim(s) are generic: 1-28.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons.

An international application should relate to only one invention or, if there is more than one invention, the inclusion of those inventions in one international application is only permitted if all inventions are so linked as to form a single general inventive concept (PCT Rule 13.1). With respect to the species, unity of invention exists only when there is a technical relationship among the claimed inventions involving one or

Art Unit: 1614

more of the same or corresponding special technical features. The expression “special technical features” shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

The claims herein lack unity of invention under PCT Rule 13.1 and 13.2 because the instant invention does not set forth a technical relationship among the claimed inventions. For instance, the instant invention lacks unity in that the divergent alpha-ketoglutaric acid (AKG) derivatives, metabolites, analogues, or mixtures thereof set forth in instant claim 2 (e.g. alpha-ketoglutaric acid [AKG] and chitosan-AKG) do not share a technical relationship, such as a common core structure or biological, physical, or chemical properties. Therefore, with compositions comprising components of varying structural moieties, such as those claimed in instant claim 2, there is not a technical relationship among the claimed inventions.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one

Art Unit: 1614

or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double

Art Unit: 1614

patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

### ***Conclusion***

Claims 1-28 are subject to a restriction/election of species requirement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NELSON C. BLAKELY III whose telephone number is (571) 270-3290. The examiner can normally be reached on Mon - Thurs, 7:00 am - 5:30 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin H. Marschel can be reached on (571) 272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. C. B. III/  
Examiner, Art Unit 1614

/Ardin Marschel/  
Supervisory Patent Examiner, Art Unit 1614